



Perform  
forensic search

How to guide

**6.2**

# Vehicle forensic search

AXIS Optimizer for Milestone XProtect®

**AXIS**<sup>®</sup>  
COMMUNICATIONS

Step-by-step:

# Vehicle forensic search

AXIS Optimizer vehicle search function provides an efficient way to search for, recover, and share video evidence derived from specific license plate recognition applications – without the need for or cost of analytics servers.

## Requirements

- Install your choice of Milestone XProtect:
  - Corporate 2019 R3 or later
  - Professional+ 2022 R3 or later
  - Express+ 2022 R3 or later
- Install the latest version of AXIS Optimizer on the Management Client
- Axis cameras with any of these embedded license plate recognition applications:
  - AXIS License Plate Verifier by Axis Communications
  - TraFFic CaMMRa by FF Group (version 1.3.1 + recommended)
  - VaxALPR On Camera by Vaxtor Recognition Technologies
  - VaxALPR On Camera MMC by Vaxtor Recognition Technologies
- Camera time synchronized with NTP

## Configure vehicle search

1. In Management Client, add the camera that runs the chosen application
2. Enable all devices that you need. To be able to use AXIS Licence Plate Verifier, Camera 1 and Metadata 1 are required.
3. Configure metadata:
  - a. Go to **Site Navigation → Recording Server** and find the device
  - b. Select Metadata 1 and click **Settings**
  - c. Go to **Metadata stream → Event data** and select Yes
4. Go to the **Record settings** tab and make sure that recording is enabled for metadata
5. Click **Save**
6. Configure the application so that it works for a standard user:
  - a. Add read and playback rights on the specific camera and user
  - b. Add read and playback rights on the metadata for the specific camera and user

## Perform forensic search

1. In Smart Client, go to **Search**
2. Select a time interval and one or several cameras
3. Click **Search for → Vehicle search → New search**
4. Select search filters to fine-tune and narrow down the number of search results (see below)
5. Select the search results you want to examine closer

## Fine-tune a search

Decrease the number of possible search results by using any of these built-in filters:

- **License plate**- filters by specific license plate number
- **Country**- filters by license plates from a certain country
- **Type of vehicle**- filters by specific vehicle types, i.e. car, truck, motorcycle, etc.
- **Brand**- filters by vehicle-specific brands, i.e. Ford, Toyota, Volkswagon, etc.
- **Model**- filters by specific vehicle models (Mustang, RAV, Passat, etc.)
- **Color**- filters by specific colors (white, red, blue, etc.)
- **Direction**- filters how objects move in a scene, i.e. left, right, up, or down
- **Cameras**- filters by specific cameras, e.g. which enables location filtering
- **Region of interest**- filters by objects that moved in a specific area
- **Object type**- filters by certain types of objects: i.e. human, vehicle, bike, bus, car, or truck
- **Vehicle color**- filters by color attributes







## About search results

- For each search result, you'll see the object and the object's travel path in the thumbnail.
  - The thumbnail shows the video frame when the object was the most visible
  - The green point shows where the camera first detected the object
  - The red point shows where the camera last detected the object
  - To see the complete video sequence for a search result, select it and click **Play forward** in the preview panel

## Notes

- To hide the graphical overlays, go to **Bounding boxes** and select **Hide**
- A camera's embedded analytics applications might also burn in overlays in the video. To remove these overlays, go to the application's web configuration page

## Export high-quality PDF search results

To save a PDF report with high-quality images

- Click **Export...**
- Select **PDF...**
- (Optional) Enter **Report name**, **Report destination**, and **Notes**
- For each search result, select which frame you want to include in the report. To enlarge an image, double-click it.
- Click **Create**. When the report is ready, you'll get a notification

Support to get you started

Watch AXIS Optimizer how to videos

See online user manual

Download more how to guides

Read AXIS Optimizer getting started guide

Step-by-step workflows for specific jobs-to-be-done may change over time. Please refer to the [online user manual](#) for the latest descriptions

# Accelerate forensic investigations

The vast majority of forensic investigations involve video evidence. Not only can video come from various sources, but often investigators aren't sure what or whom they are looking for or exactly when an incident took place. On top of this, the sheer amount of video sent from just one camera mounted at one location over a day, week, or even longer is extensive. So investigators must spend hours reviewing video clips in search of a single incident or activity, which is inefficient. Additionally, metadata is traditionally sent for full analysis on servers, which increases costs.

## How AXIS Optimizer solves this problem

AXIS Optimizer vehicle search accelerates post-event forensic investigations by streamlining the search for vehicles in a scene – without the need or cost of analytic servers. Investigators can efficiently pinpoint a vehicle from archives of video footage taken from one or multiple Axis cameras, reducing analysis time from hours to minutes or seconds. Delivering an efficient way to search for, recover, and share video evidence, it accelerates forensic investigations by optimizing the integration of video and metadata streams from Axis deep learning cameras with select embedded license plate recognition analytics into Milestone XProtect Centralized Search framework. Axis deep learning cameras send searchable, detail-rich metadata streams into Milestone XProtect Centralized Search. In addition to searching for vehicles, AXIS Optimizer forensic search options are available in Centralized search for objects, people, and incidents, container search, and zone speed infractions.

### About AXIS Optimizer for Milestone XProtect

AXIS Optimizer is a suite of integrations that optimizes the performance of Axis devices in Milestone XProtect. It ensures all users save considerable time and effort while getting the most out of their Axis and Milestone system. Continuously updated to cover new Axis offerings, it's available for free as a one-time installer on [axis.com](https://axis.com).

# About Axis Communications

Axis enables a smarter and safer world by creating solutions for improving security and business performance. As a network technology company and industry leader, Axis offers solutions in video surveillance, access control, intercom, and audio systems. They are enhanced by intelligent analytics applications and supported by high-quality training.

Axis has around 4,000 dedicated employees in over 50 countries and collaborates with technology and system integration partners worldwide to deliver customer solutions. Axis was founded in 1984, and the headquarters are in Lund, Sweden.